2002 Michigan Nutrition and Physical Activity Survey: Report and Tables

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Background

Chronic diseases such as heart disease, cancer, and diabetes cause 7 of every 10 deaths in the United States. Although chronic diseases are among the most common and costly health problems, they are also among the most preventable. Adopting healthy behaviors such as eating nutritious foods, being physically active, and avoiding tobacco use can prevent or control the devastating effects of these diseases. The annual cost of treating and living with chronic disease in the U.S. is estimated at $325 billion.

Michigan Department of Community Health identified the need to establish baseline information about the state's dietary habits as part of an effort to monitor the issues related to nutrition and chronic disease in the adult Michigan population, with a special look at the African American segment of the state's consumers. As a result, a survey was undertaken in 2002 using the same telephone survey methodology that is used by the Behavioral Risk Factor Surveillance System (BRFSS).

The 2000 USDA Dietary Guidelines for Americans[1] and the USDA Food Guide Pyramid[2] have been used as guidance to help reduce incidence of cardiovascular disease and cancer and guided the development of this survey. The Food Guide Pyramid is based on USDA's research on what foods Americans eat and what nutrients are in these foods. The Pyramid is an outline of what to eat each day based on the Dietary Guidelines. It is not a rigid prescription but a general guide on healthful food choices.

The Dietary Guidelines state in general to:

• Eat a variety of foods to get the energy, protein, vitamins, minerals, and fiber needed for good health.

• Balance the food you eat with physical activity - maintain or improve your weight to reduce risk of high blood pressure, heart disease, stroke, certain cancers, and the most common kind of diabetes.

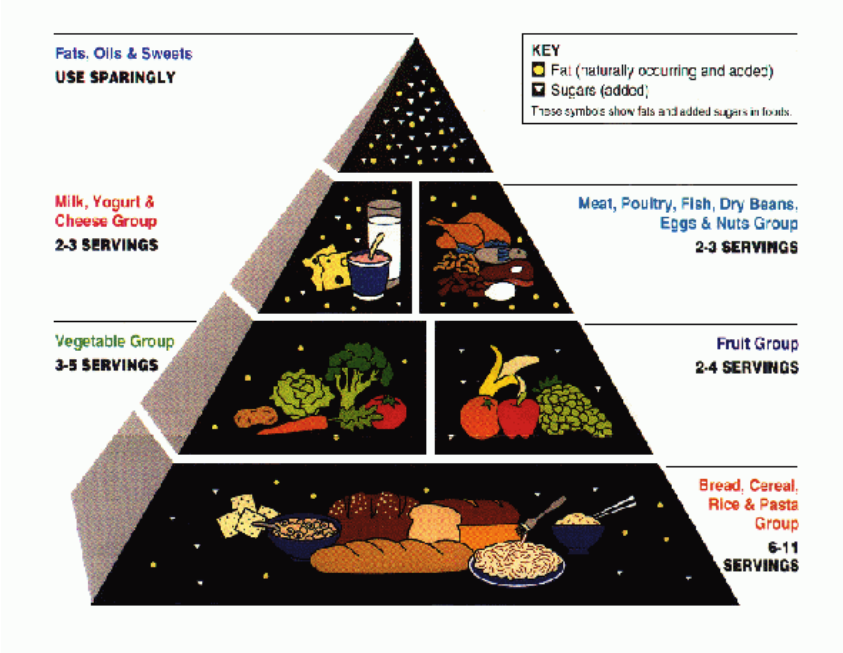
• Choose a diet with plenty of grain products, vegetables, and fruits that provide needed vitamins, minerals, fiber, and complex carbohydrates, and can help lower intake of fat.

• Choose a diet low in fat, saturated fat, and cholesterol to reduce risk of heart attack and certain types of cancer and to help maintain a healthy weight.

• Choose a diet moderate in sugars. A diet with lots of sugars has too many calories and too few nutrients for most people and can contribute to tooth decay.

• Choose a diet moderate in salt and sodium to help reduce risk of high blood pressure.

The Food Guide Pyramid gives the number of servings to eat each day for health:



In this brief report, we present the methods used in this survey, highlights from the results, and a set of result tables. In general when reviewing survey results, it should be remembered that research has found people's perception of consumption varies from actual consumption based on subject's food diaries. They tend to underestimate consumption of grain products, fats, and sweets, and to overestimate intake of fruit, milk products, meat, beans and eggs. In part this is a challenge for nutrition educators to educate consumers on what is a serving.[3, 4]

Methods

The Michigan Nutrition and Physical Activity Survey was conducted by telephone between June and December 2002 by the Office of Survey Research at Michigan State University. The sampling design for this survey was a disproportionate stratified, list-assisted random-digit dial sample, with an over-sample of African Americans. Once a household was contacted, one adult

aged 18 years or older was randomly selected to be interviewed. The survey contained 119 questions that covered health conditions, body size, weight status and management, food frequencies related to fruits and vegetables and the food guide pyramid, physical activity, and demographics. The total sample size was 3518 (including 1213 African Americans); the average length of an interview was 26 minutes. Data were weighted and the analysis was conducted using SUDAAN to account for the weighting and sampling design. [5]

Survey Highlights

Overall diet quality –

Respondents said their diet was excellent to very good 33% of the time, good 42% and fair to poor 25%. Caucasians were more likely to rate their diets higher than African Americans, and a higher proportion rated their diets excellent to very good when they were in the upper income ranges than those in lower income levels. Sex seemed to not differentiate diet quality ratings and college graduates were more likely to rate their diets excellent to very good than people who had less than a college graduate education. (Table 1)

Nutrient or Food Groups Related to Decreased Risk of Chronic Diseases

Fruits and vegetables –

Nearly one-quarter (24.5%) of respondents reported consuming fruits and vegetables 5 or more times per day, which was similar to the estimate obtained from the 2002 Michigan BRFSS (22.6%). Females were more likely to indicate they ate fruits and vegetables at least 5 times a day than males (30.6% vs. 17.8%). African Americans and Caucasians had similar prevalence rates (24.4% and 23.5%), however, among college graduates the proportion reporting 5 or more servings (35%) was higher than among other educational groups. The Food Guide Pyramid recommends that people eat 2-4 servings of fruit and 3-5 servings of vegetables each day. When intake of fruits and vegetables combined were compared to the Dietary Guideline recommendations of women having seven servings and men having nine servings a day for prevention of chronic disease, only 1.7% of men and 10% of women met these levels. These consumption patterns did not vary greatly from the average. (Table 2-4)

Variety of intake is important for many food groups, as variety of different foods relates to prevention of chronic disease and is one of the dietary guidelines. Survey respondents were asked the number of different kinds of fruits and vegetables they consumed weekly. Overall, people indicated that they ate almost three different fruits weekly and three and a half different

vegetables weekly. In general, women and college graduates ate slightly more different fruits and vegetables weekly. (Table 5)

Dietary fat consumption –

Respondents were asked if their diet was high, medium or low in fat and whether they were trying to decrease or limit their fat intake. Thirty-one percent said their diets were low in fat and 65% were trying to decrease or limit fat. This varied greatly with age, in that only about 25% of people younger than 45 years old said their diets were low in fat, while 32% to 48% of people aged 45 to 75+ said diets were low in fat. More than one-third of females (33.7%) and college graduates (37%) indicated their diets were low in fat. Higher percentages of people older than 45, and women were trying to decrease or limit fat intake. (Table 6)

Dietary salt consumption –

Respondents were asked if their diet was high, medium or low in dietary salt or sodium and whether they were trying to decrease or limit their salt or sodium intake. Thirty-four percent reported their diets were low in salt and 41% said they were trying to decrease or limit salt. Both of these indicators tended to increase consistently with age, and a higher proportion of African Americans were trying to decrease or limit salt compared with Caucasians (65.0% vs. 37.3%). (Table 7) When asked about their use of salt in food preparation, 35.2% reported that they added salt during meal preparation always or most of the time; 21.6% reported that they added salt to their food at the table always or most of the time. (Table 8)

Milk and cheese consumption –

When asked how often they drank milk, 78.7% said they did at least once a week. A higher proportion of Caucasians drank milk than African Americans (81.3% vs. 61.6%). Of those who drank milk at least once a week, 30.9% drank skim or ½% milk, however it is notable that only 9.2% of African Americans drank skim or ½% milk and only 10.4% of those with less than a high school education. Only 28.8% consumed 2 or more servings of milk or cheese per day on average. The proportion consuming at least 2 servings a day decreased with age from 52.8% of those aged 18-24 years to 14.1% of those 65-74 years. A higher proportion of Caucasians reported at least 2 servings compared with African Americans (31.1% vs. 17.0%). (Table 9)

Label reading behavior –

When asked if they read nutrition labels on foods, 45% indicated they read the labels always or most of the time. Among those who ever read food labels, 53% said they read the sodium content

of foods always or most of the time, and 71% said they read fat content always or most of the time. People have apparently gotten the message that they should read the fat content of food listed on labels. (Table 10)

Restaurant food, convenience food and meatless meals, –

Respondents were asked questions about their consumption of fast food, restaurant food, convenience foods and meatless meals in an attempt to understand prevalence of these behaviors that could be related to healthy eating. The majority (55.1%) of Michigan adults were estimated to eat out 1-4 times per week at a restaurant (including fast food and take-out), and 14.2% ate out 5 or more times per week. Nearly one-third (28.9%) reported eating convenience foods several times per week and nearly 10% reported eating them at least once per day. The median number of meatless dinners reported eaten per week was just less than 1 (.8). Increasing meatless meals by using alternative protein dishes could increase vegetable intake and decrease fat intake of Michigan citizens. (Table 11, 12, and 13)

Advice on and changes to improve diet, weight and physical activity –

Respondents were asked about advice they were given by doctors or health professionals related to selected lifestyle behaviors. In response to whether their doctor advised them to eat fewer high fat or high cholesterol foods, 27% said yes, with the greatest variance being related to the age of the respondent (6% aged 18-24 to 48% aged 65-74). (Table 14)

When asked if their doctor, nurse or other health professional gave them advice about their weight, nearly 22% of respondents answered yes, with 17.8% being advised to lose weight, 1.5% advised to gain weight, and 2.3% advised to maintain their weight. The same percentage (21.6%) said they were given advice by a doctor or nurse related to physical activity, with 13% being advised to increase physical activity, and 4.8% to maintain and 3.6% to decrease physical activity. Since people at least try to do what physicians suggest, this seems to be an area where physicians need to be encouraged to take more interest in the positive lifestyle behaviors of their patients.[6] (Table 14)

When asked if they made changes in their diet, physical activity or both to improve their health in the past year, 47% of respondents responded yes to diet, 42% responded yes to physical activity and 29% to both. (Table 15) Since we did not ask questions beyond health care professional advice, it is clear that almost half of respondents are using other sources to determine the need to

change their lifestyle behaviors. According to the ADA's *Nutrition and You: Trends 2000* survey, the media are consumers' leading source of nutrition information, with television (48%), magazines (47%), and newspapers (18%) cited as the top three information sources. Other sources cited include books (12%), doctors (11%), and family and friends (11%).[7]

Knowledge about the amount of fruits, vegetables and grain foods to eat –
Respondents were asked three questions about how many servings of fruit, vegetables and grain foods they thought they should eat every day for good health. Seventy-five percent of respondents said they should eat two or more servings of fruit, with the Food Guide Pyramid recommendation being 2-4 servings. The lowest percent of respondents were those with less than a high school education with only 58% answering two or more servings.

Approximately 50% of respondents answered that they should eat three or more servings of vegetables with the food guide pyramid recommendation being 3-5 servings. There was wide variance in the percent of people answering three or more servings. The group with the greatest proportion reporting 3 or more servings was 18-24 year olds (70%). The lowest percent of respondents reporting 3 or more servings were males (35%), those with less than a high school education (35%) and those 75 years of age or older (37%).

When asked how many servings of grain foods they thought they should eat for good health, only 8% answered 6 or more. Percent of respondents ranged from 1% (75 years or older) to 25% (18-24 year olds), with most demographic segments having less than 10% answering 6 or more servings. The Food Guide Pyramid recommendation for grain products is 6-11 servings daily with the lower servings being suggested for women and people who are less active. (Table 16)

5 A Day Slogan –
Only 32% of respondents had heard the slogan "5 A Day for Better Health" and only 49% of those knew that it meant to eat 5 servings of fruits and vegetables daily. (Table 17)

Awareness of role of folic acid –
Sixty-five percent of respondents had heard or read that folic acid can help prevent some birth defects. Among educational groups, proportions ranged from 45% (less than high school graduates) to 80% (college graduates). Only 37% of African Americans responded yes. African American women of reproductive age need to be targeted more intensely for messages about folic

acid. Since only 57.3% of respondents with incomes less than $35,000 knew the folic acid messages, the WIC and Maternal Support Service programs need to especially be promoting folic acid. (Table 18)

Weight status and management –

In general, respondents have a fairly good perception of their weight status when asked how they would describe their body weight. However, at the upper levels of the spectrum people tended to underestimate their weight as compared to body mass index. The Dietary Guidelines classify a body mass index (BMI) of 25.0-29.9 as overweight and a BMI of 30 or greater as obese. Sixty-five percent of respondents with a BMI between 25.0 and 29.9 considered themselves to be slightly overweight. Among those with a BMI of 30 or greater, 48.2% perceived themselves to be slightly overweight and only 45.6% considered themselves very overweight. (Table 19)

The Dietary Guidelines identify a waist measurement of over 40 inches for men and over 35 inches for women as increasing risk for heart disease. Respondents were asked if their waist measurement in inches was less than 30, 30 to 35, 36 to 40, 41 to 45, or more than 45 inches. For men, 12.9% said their waist was larger than 40 inches and 26.4% of women said their waist was more than 35 inches. (Table 20)

Environmental Factors –

The most promising way to impact lifestyle behavior is to make it easy for people to practice healthy habits. In this survey, respondents were asked several questions related to community or worksite support of healthy behaviors. When asked if there was a grocery store or supermarket located a reasonable distance from their home that had a good variety of food, 92.2% said yes. In response to safe and convenient places to bicycle or walk for exercise, 88.0% indicated that this was available in their community. (Table 21) When respondents who were employed for wages were asked if their work place encouraged employees to be more physically active, only 37.2% said yes. Sixty-nine percent of people who were employed said that there were food items for sale at work, but of these, only 25% said they were very satisfied that they had healthy foods for sale. Fifty-four percent were able to buy fruits and vegetables at work.

Summary

While communities enable healthy living for those who want to take advantage of the options available, clearly there is more work to be done in assuring that the work environment supports a healthy lifestyle. It is clear that there are a number of things state programs can do to have more impact on the nutrition and physical activity habits of Michigan citizens. Healthy messages need to target improved consumption of protective foods – fruits, vegetables, whole grains, meatless meals and low fat dairy products. People need to be encouraged to be more physically active both in communities and in workplaces. The proportion of adults who frequently read food labels needs to be increased, especially for sodium content. Physicians need to be helped to increase their impact on the positive lifestyle behavior of patients. Michigan citizens need to be encouraged to make health their choice.

The Next Steps

We are continuing to analyze the data from this survey to estimate a diet quality indicator similar to the Healthy Diet Indicator that was calculated using the 1997 Michigan BRFSS.[8, 9] We will also analyze some of these data in a multivariate framework and compare the results of this survey to data from the Diet History Questionnaire (NCI's dietary tool). We also anticipate that a Nutrition and Physical Activity Survey will be conducted periodically in Michigan. We hope that future surveys will use portions of the questionnaire that was used for this 2002 survey and will build upon and further develop other areas of the survey instrument.

References

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[3] Basiotis PP, Lino M and Dinkins JM. Consumption of Food Group Servings: People's Perceptions vs. Reality. *USDA Nutrition Insights* No. 20, October 2000.

[4] Thompson FE, Kipnis V, Subar AF, Krebs-Smith SM, Kahle LL Midthune D, Potischman N and Schatzkin A. Evaluation of 2 brief instruments and a food-frequency questionnaire to estimate daily number of servings of fruits and vegetables. *American Journal of Clinical Nutrition*. 71:1503-10. 2000.

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[9] Lino M, Basiotis PP, Anand RS, Variyam JN. The diet quality of Americans: Strong link with nutrition knowledge. *Nutrition Insights.* 12(1):49-51. 1999.

List of Tables

Table 1. Perceived Quality of Eating Habits[1]
2002 Michigan Nutrition and Physical Activity Survey
(percentages with 95% confidence interval limits)

Demographic Characteristics	Excellent to Very Good	Good	Fair to Poor
Total	33.1 ±2.6	42.3 ±2.7	24.6 ±2.4
Age (in years)			
18-24	31.0 ±8.7	38.0 ±9.3	31.0 ±9.1
25-34	29.5 ±6.7	46.2 ±7.0	24.3 ±5.4
35-44	25.6 ±5.4	48.5 ±6.4	25.9 ±5.8
45-54	33.4 ±5.9	40.1 ±6.1	26.5 ±5.8
55-64	37.5 ±6.5	40.4 ±6.6	22.1 ±5.5
65-74	45.2 ±7.3	39.4 ±7.4	15.4 ±4.7
75+	45.4 ±7.4	33.8 ±6.8	20.8 ±7.0
Sex			
Males	31.1 ±3.9	43.3 ±4.4	25.6 ±3.9
Females	34.9 ±3.4	41.4 ±3.5	23.7 ±3.0
Race			
White	34.7 ±2.9	43.0 ±3.1	22.3 ±2.7
Black	22.5 ±5.7	39.4 ±6.9	38.1 ±7.1
Education			
<High school	24.6 ±6.9	46.5 ±9.6	28.9 ±8.9
High school graduate	28.8 ±4.3	42.3 ±4.7	28.9 ±4.2
Some college	28.9 ±4.5	45.8 ±5.2	25.3 ±4.5
College graduate	46.3 ±5.3	37.1 ±4.9	16.6 ±4.5
Household income			
< $20,000	24.1 ±6.1	40.3 ±7.3	35.6 ±7.2
$20,000-34,999	30.9 ±5.0	39.8 ±5.7	29.3 ±5.4
$35,000-49,999	26.6 ±6.0	48.6 ±7.1	24.8 ±5.9
$50,000-74,999	37.6 ±6.8	41.7 ±6.9	20.7 ±6.0
$75,000 +	45.1 ±6.8	38.2 ±6.4	16.7 ±5.3

[1]Response to the question, "Next, I'm going to ask you some questions about your diet, or what you eat on a regular basis. Would you consider your eating habits to be excellent, very good, good, fair, or poor?"

Table 2. Consumed Fruits and Vegetables at Least 5 Times a Day

2002 Michigan Nutrition and Physical Activity Survey

(percentages with 95% confidence interval limits)

Demographic Characteristics	Consumed Fruits and Vegetables at Least 5 Times/Day[1]
Total	24.5 ±2.3
Age (in years)	
18-24	24.9 ±8.4
25-34	18.2 ±5.3
35-44	20.0 ±4.8
45-54	25.3 ±5.3
55-64	27.1 ±5.8
65-74	31.0 ±6.8
75 +	38.3 ±7.6
Sex	
Males	17.8 ±3.1
Females	30.6 ±3.3
Race	
White	24.4 ±2.6
Black	23.5 ±5.9
Education	
<High school	21.1 ±6.4
High school graduate	18.9 ±3.5
Some college	22.3 ±4.3
College graduate	35.1 ±5.0
Household income	
< $20,000	21.8 ±5.6
$20,000-34,999	25.3 ±5.1
$35,000-49,999	21.3 ±5.6
$50,000-74,999	21.0 ±5.2
$75,000 +	31.0 ±6.3

[1]Calculated from the sum of reported frequencies of usual juice, fruit, green salad, white potatoes (excluding French fries, fried potatoes, and potato chips), dark green leafy vegetables, dark yellow or orange-colored vegetables, cooked dried beans, and other vegetables (eight questions).

Table 3. Consumed Fruits and Vegetables at Least 7 Times a Day for Women and 9 Times a Day for Men[1]

2002 Michigan Nutrition and Physical Activity Survey

(percentages with 95% confidence intervals)

Demographic Characteristics	Men: Consumed Fruits and Vegetables >= 9 Times/Day	Women: Consumed Fruits and Vegetables >= 7 Times/Day
Total	1.7 ±0.8	10.0 ±2.2
Age (in years)		
18-34	1.9 ±1.6	8.6 ±4.7
35-54	0.9 ±0.8	12.1 ±4.1
55+	2.7 ±2.0	8.2 ±2.5
Race		
White	1.2 ±0.8	9.1 ±2.5
Black	3.7 ±3.3	13.8 ±6.3
Education		
<= High school graduate	1.8 ±1.2	9.5 ±3.3
>= Some college	1.6 ±1.0	10.4 ±2.9

[1]Calculated from the sum of reported frequencies of usual juice, fruit, green salad, white potatoes (excluding French fries, fried potatoes, and potato chips), dark green leafy vegetables, dark yellow or orange-colored vegetables, cooked dried beans, and other vegetables (eight questions).

Table 4. Median Fruit, Vegetable, and Total Fruit and Vegetable Consumption
2002 Michigan Nutrition and Physical Activity Survey
(means with 95% confidence interval limits)

Demographic Characteristics	Fruit[1] (median times/day)	Vegetable[2] (median times/day)	Fruit and Vegetable[3] (median times/day)
Total	1.3 (1.2-1.3)	1.9 (1.8-1.9)	3.4 (3.3-3.6)
Age (in years)			
18-24	1.3 (1.1-1.9)	1.5 (1.3-1.8)	3.1 (2.8-3.7)
25-34	1.1 (1.1-1.3)	1.6 (1.5-1.8)	3.0 (2.7-3.4)
35-44	1.1 (1.1-1.3)	1.7 (1.5-1.9)	3.2 (2.8-3.4)
45-54	1.2 (1.2-1.4)	2.1 (1.9-2.2)	3.4 (3.2-3.8)
55-64	1.4 (1.3-1.9)	2.0 (1.9-2.1)	3.6 (3.3-3.9)
65-74	1.5 (1.3-1.9)	2.1 (2.0-2.4)	3.9 (3.6-4.2)
75+	1.9 (1.9-2.0)	2.3 (2.1-2.5)	4.3 (4.1-4.7)
Sex			
Males	1.1 (1.1-1.3)	1.6 (1.5-1.8)	3.1 (2.9-3.3)
Females	1.4 (1.4-1.8)	2.0 (1.9-2.2)	3.8 (3.6-4.0)
Race			
White	1.3 (1.2-1.4)	1.9 (1.8-2.0)	3.5 (3.3-3.6)
Black	1.4 (1.2-1.8)	1.4 (1.3-1.7)	3.0 (2.7-3.4)
Education			
<High school	1.2 (1.1-1.6)	1.7 (1.5-2.0)	3.1 (2.8-3.9)
High school graduate	1.2 (1.2-1.4)	1.8 (1.6-1.9)	3.3 (3.1-3.5)
Some college	1.2 (1.2-1.3)	1.8 (1.6-1.9)	3.2 (3.1-3.5)
College graduate	1.6 (1.3-1.9)	2.0 (2.0-2.3)	3.9 (3.6-4.3)
Household income			
< $20,000	1.2 (1.1-1.5)	1.7 (1.5-2.0)	3.3 (3.0-3.7)
$20,000-34,999	1.3 (1.2-1.7)	1.9 (1.7-2.0)	3.5 (3.1-3.8)
$35,000-49,999	1.2 (1.2-1.4)	1.9 (1.7-2.1)	3.4 (3.1-3.7)
$50,000-74,999	1.3 (1.2-1.6)	1.7 (1.5-1.9)	3.1 (2.8-3.5)
$75,000 +	1.3 (1.2-1.8)	2.0 (1.9-2.2)	3.7 (3.3-4.0)

[1]Calculated from the sum of reported frequencies of usual fruit juice and fruit consumption (two questions).

[2]Calculated from the sum of reported frequencies of usual consumption of green salad, white potatoes (excluding French fries, fried potatoes, and potato chips), dark green leafy vegetables, dark yellow or orange-colored vegetables, cooked dried beans, and other vegetables (six questions).

[3]Calculated from the sum of reported frequencies of usual consumption of all eight fruit and vegetable questions.

Table 5. Number of Different Kinds of Fruits and Vegetables Consumed Weekly
2002 Michigan Nutrition and Physical Activity Survey
(medians with 95% confidence intervals)

Demographic Characteristics	Different Kinds of Fruit Consumed[1]	Different Kinds of Vegetables Consumed[2]
Total	2.9 (2.8-3.0)	3.6 (3.5-3.7)
Age (in years)		
18-24	3.1 (2.7-3.5)	3.2 (2.8-3.6)
25-34	2.7 (2.4-3.0)	3.4 (3.1-3.8)
35-44	3.0 (2.7-3.4)	3.6 (3.3-3.8)
45-54	3.0 (2.8-3.3)	3.7 (3.4-4.0)
55-64	2.9 (2.7-3.3)	3.8 (3.5-4.1)
65-74	2.9 (2.6-3.2)	3.7 (3.5-4.0)
75+	2.8 (2.6-3.1)	3.8 (3.5-4.3)
Sex		
Males	2.6 (2.5-2.8)	3.3 (3.2-3.5)
Females	3.3 (3.1-3.5)	3.8 (3.6-4.0)
Race		
White	2.9 (2.8-3.1)	3.7 (3.5-3.8)
Black	2.7 (2.4-3.0)	3.0 (2.8-3.3)
Education		
< High school	2.6 (2.2-3.1)	3.3 (2.8-3.7)
High school graduate	2.6 (2.5-2.8)	3.1 (2.9-3.4)
Some college	3.0 (2.8-3.3)	3.7 (3.5-3.9)
College graduate	3.4 (3.2-3.7)	4.0 (3.8-4.2)
Household income		
< $20,000	2.6 (2.4-2.9)	3.0 (2.8-3.4)
$20,000-34,999	2.8 (2.6-3.0)	3.4 (3.1-3.7)
$35,000-49,999	2.8 (2.5-3.0)	3.6 (3.3-3.9)
$50,000-74,999	3.2 (2.9-3.6)	3.7 (3.5-4.0)
$75,000 +	3.3 (3.0-3.6)	3.9 (3.6-4.2)

[1]Response to the question, "During a usual week, how many different kinds of fruit or 100% fruit juice do you usually consume?"

[2]Response to the question, "During a usual week, how many different kinds of vegetables do you usually eat?"

Table 6. Indicators of Dietary Fat Consumption

2002 Michigan Nutrition and Physical Activity Survey

(percentages with 95% confidence interval limits)

Demographic Characteristics	Diet Low in Fat[1]	Trying to Decrease or Limit Fat[2]
Total	31.1 ±2.6	65.3 ±2.7
Age (in years)		
18-24	23.8 ±7.8	41.8 ±9.3
25-34	25.8 ±6.7	58.7 ±6.8
35-44	24.6 ±5.5	62.9 ±6.5
45-54	32.3 ±5.9	71.9 ±5.8
55-64	36.3 ±6.7	76.5 ±5.9
65-74	48.1 ±7.4	82.7 ±5.2
75 +	42.0 ±7.0	71.9 ±6.7
Sex		
Males	28.2 ±4.0	57.4 ±4.4
Females	33.7 ±3.3	72.5 ±3.3
Race		
White	31.1 ±2.9	64.5 ±3.1
Black	30.0 ±6.2	70.5 ±7.4
Education		
< High school	30.1 ±7.4	57.5 ±9.9
High school graduate	26.2 ±4.1	63.2 ±4.7
Some college	31.7 ±4.9	69.5 ±4.8
College graduate	37.0 ±5.2	65.9 ±5.3
Household income		
< $20,000	29.9 ±6.4	61.9 ±7.7
$20,000-34,999	35.1 ±5.6	67.1 ±5.6
$35,000-49,999	25.7 ±6.1	62.7 ±7.0
$50,000-74,999	29.3 ±6.4	67.8 ±6.8
$75,000 +	34.0 ±6.7	69.7 ±6.5

[1]Reported "low" in response to the question, "Would you say your diet was high, medium, or low in fat?" Overall results were 15.8% (±2.1) high, 53.1% (±2.8) medium, and 31.1% (±2.6) low.

[2]Reported "yes" to the question, "Are you currently trying to decrease or limit the amount of fat in the foods you eat?"

Table 7. Indicators of Dietary Salt Consumption

2002 Michigan Nutrition and Physical Activity Survey

(percentages with 95% confidence interval limits)

Demographic Characteristics	Diet Low in Salt[1]	Trying to Decrease or Limit Salt[2]
Total	33.8 ±2.6	41.4 ±2.7
Age (in years)		
18-24	17.7 ±7.3	24.9 ±8.2
25-34	26.6 ±6.5	26.6 ±6.0
35-44	32.0 ±6.2	41.1 ±6.3
45-54	38.2 ±6.1	47.7 ±6.3
55-64	40.5 ±6.7	47.9 ±6.6
65-74	45.3 ±7.5	61.5 ±7.1
75 +	45.6 ±7.5	52.8 ±7.5
Sex		
Males	31.9 ±4.1	39.0 ±4.2
Females	35.4 ±3.4	43.5 ±3.4
Race		
White	32.5 ±3.0	37.3 ±3.0
Black	39.5 ±7.2	65.0 ±7.1
Education		
< High school	39.3 ±9.8	46.8 ±9.3
High school graduate	30.4 ±4.4	46.7 ±4.7
Some college	35.8 ±5.0	42.3 ±5.1
College graduate	34.2 ±4.8	31.5 ±4.7
Household income		
< $20,000	37.3 ±7.2	50.1 ±7.4
$20,000-34,999	34.7 ±5.6	45.2 ±5.7
$35,000-49,999	26.9 ±6.3	38.0 ±6.7
$50,000-74,999	37.3 ±7.0	39.6 ±6.9
$75,000 +	38.8 ±6.6	35.3 ±6.4

[1]Reported "low" in response to the question, "Would you say your diet was high, medium, or low in salt and sodium?" Overall results were 15.4% (±2.1) high, 50.8% (±2.8) medium, and 33.8% (±2.6) low.

[2]Reported "yes" to the question, "Are you currently trying to decrease or limit the amount of salt or sodium in the foods you eat?"

Table 8. Indicators of Dietary Salt Use Patterns

2002 Michigan Nutrition and Physical Activity Survey

(percentages with 95% confidence interval limits)

Demographic Characteristics	Salt Added During Meal Preparation Always or Most of the Time[1]	Salt Added at the Table Always or Most of the Time[2]
Total	35.2 ±2.6	21.6 ±2.2
Age (in years)		
18-24	41.4 ±9.6	26.0 ±8.3
25-34	36.7 ±6.6	20.1 ±4.9
35-44	30.7 ±5.6	25.6 ±5.5
45-54	32.3 ±5.9	20.7 ±5.0
55-64	37.6 ±6.4	23.6 ±5.9
65-74	32.4 ±6.8	19.6 ±5.9
75 +	39.4 ±7.4	10.1 ±3.8
Sex		
Males	33.9 ±4.0	22.8 ±3.4
Females	36.4 ±3.4	20.6 ±2.9
Race		
White	32.4 ±2.9	22.0 ±2.5
Black	49.3 ±7.1	19.7 ±5.5
Education		
< High school	32.3 ±7.7	23.3 ±8.4
High school graduate	42.8 ±4.7	27.5 ±4.3
Some college	31.4 ±4.6	17.4 ±3.5
College graduate	30.8 ±4.9	18.4 ±3.8
Household income		
< $20,000	35.6 ±6.8	22.2 ±6.2
$20,000-34,999	39.5 ±5.5	23.2 ±4.5
$35,000-49,999	38.1 ±7.1	29.1 ±6.6
$50,000-74,999	31.4 ±6.2	20.4 ±5.1
$75,000 +	29.1 ±6.2	17.4 ±5.2

[1]Reported "always" or "most of the time" to the question, "How often do you, or the person who prepares your meals, add salt during meal preparation? Would you say always, most of the time, half the time, only sometimes, or never?" Overall results were 19.3% (±2.2) always, 15.9% (±2.0) most of the time, 10.5% (±1.8) half the time, 31.8% (±2.6) only sometimes, and 22.5% (±2.4) never.

[2]Reported "always" or "most of the time" to the question, "How often do you add salt to your food at the table?" Overall results were 12.1% (±1.7) always, 9.5% (±1.6) most of the time, 8.1% (±1.6) half the time, 33.7% (±2.7) only sometimes, and 36.6% (±2.6) never.

Table 9. Milk and Cheese Consumption and Type of Milk Consumed

2002 Michigan Nutrition and Physical Activity Survey

(percentages with 95% confidence intervals)

Demographic Characteristics	Drank Milk at Least Once a Week[1]	Usually Drank Skim or Half Percent Milk[2]	Milk or Cheese 2+ Servings/Day[3]
Total	78.7 ±2.2	30.9 ±2.9	28.8 ±2.5
Age (in years)			
18-24	84.0 ±7.1	28.0 ±9.6	52.8 ±9.6
25-34	84.0 ±4.1	33.7 ±8.0	36.1 ±6.9
35-44	75.9 ±5.9	28.8 ±6.1	31.3 ±5.9
45-54	76.6 ±5.5	29.4 ±6.7	20.2 ±4.9
55-64	72.9 ±5.7	33.9 ±7.3	18.8 ±5.1
65-74	79.4 ±5.7	33.0 ±7.8	14.1 ±4.7
75+	79.9 ±6.3	32.1 ±7.3	21.4 ±5.9
Sex			
Males	80.5 ±3.3	28.6 ±4.3	31.5 ±4.1
Females	77.0 ±2.9	33.1 ±3.9	26.4 ±3.1
Race			
White	81.3 ±2.4	34.2 ±3.3	31.1 ±2.9
Black	61.6 ±7.1	9.2 ±4.3	17.0 ±5.9
Education			
< High school	79.3 ±8.0	10.4 ±4.9	28.8 ±8.8
High school graduate	75.7 ±3.9	21.9 ±4.3	28.1 ±4.3
Some college	80.1 ±4.1	34.0 ±5.7	30.3 ±4.9
College graduate	80.7 ±3.9	44.6 ±5.9	28.1 ±4.9
Household income			
< $20,000	73.0 ±6.5	18.2 ±7.1	25.0 ±6.9
$20,000-34,999	81.7 ±4.5	22.8 ±5.5	29.7 ±5.5
$35,000-49,999	78.3 ±5.5	27.1 ±7.3	34.4 ±7.1
$50,000-74,999	76.6 ±5.7	34.4 ±7.6	32.5 ±6.5
$75,000 +	81.7 ±5.1	46.8 ±7.6	23.6 ±5.5

[1]Proportion who reported that they drank milk one or more times per week.

[2]Proportion of those who drank milk at least once a week, who reported that they usually drank skim, nonfat, or half percent milk.

[3]Proportion estimated to usually consume 2 or more servings per day of milk or cheese. The number of servings per day of milk was combined with the number of times per day that cheese was consumed.

Table 10. Nutrition Label Reading Behaviors

2002 Michigan Nutrition and Physical Activity Survey

(percentages with 95% confidence interval limits)

Demographic Characteristics	Reads Labels Always or Most of the Time[1]	Reads Sodium Content Always or Most of the Time[2]	Reads Fat Content Always or Most of the Time[3]
Total	45.1 ±2.7	53.1 ±3.0	71.1 ±2.7
Age (in years)			
18-34	37.1 ±5.4	42.4 ±6.4	71.6 ±5.7
35-54	48.2 ±4.5	55.1 ±4.8	71.5 ±4.5
55+	49.1 ±4.1	60.9 ±4.3	70.3 ±4.0
Sex			
Males	35.1 ±4.1	51.2 ±5.0	66.7 ±4.6
Females	54.2 ±3.5	54.5 ±3.7	74.5 ±3.3
Race			
White	44.7 ±3.1	50.9 ±3.4	71.7 ±3.1
Black	43.6 ±7.0	66.1 ±7.2	65.5 ±7.2
Education			
<= High school	38.3 ±4.1	56.2 ±4.7	66.8 ±4.4
Some college	49.7 ±5.2	53.1 ±5.6	72.6 ±5.0
College graduate	51.1 ±5.3	48.8 ±5.5	75.3 ±4.8
Household income			
< $35,000	47.2 ±4.5	57.5 ±4.8	66.8 ±4.6
$35,000-49,999	41.4 ±7.0	52.8 ±7.7	67.3 ±7.4
$50,000-74,999	43.8 ±6.9	52.5 ±7.5	77.1 ±6.4
$75,000 +	48.1 ±6.7	51.5 ±7.3	79.8 ±5.8

[1]Proportion of all respondents who reported "always" or "most of the time" to the question, "How often do you read the ingredient and nutrition labels of food items that you eat? Would you say always, most of the time, half the time, only sometimes, or never?" Overall results were 21.1% (±2.2) always, 24.0% (±2.3) most of the time, 13.3% (±2.0) half the time, 25.0% (±2.4) only sometimes, and 16.6% (±2.1) never.

[2]Proportion of those respondents who ever read labels who reported "always" or "most of the time" to the question, "When you do read nutrition labels, how often do you look at the sodium content?" Overall results were 38.7% (±2.9) always, 14.4% (±2.2) most of the time, 6.8% (±1.5) half the time, 22.1% (±2.5) only sometimes, and 18.0% (±2.4) never.

[3]Proportion of those respondents who ever read labels who reported "always" or "most of the time" to the question, "How often do you look at the fat content?" Overall results were 52.9% (±3.0) always, 18.2% (±2.3) most of the time, 5.9% (±1.4) half the time, 15.4% (±2.2) only sometimes, and 7.6% (±1.6) never.

Table 11. Frequency of Eating Out at a Restaurant or Eating Take-Out Food[1]

2002 Michigan Nutrition and Physical Activity Survey

(percentages with 95% confidence interval limits)

Demographic Characteristics	< 1 Time/Wk[2]	1-4 Times/Wk[3]	≥ 5 Times/Wk[4]
Total	30.7 ±2.5	55.1 ±2.7	14.2 ±2.2
Age (in years)			
18-24	20.4 ±7.6	53.0 ±9.6	26.6 ±9.0
25-34	24.9 ±6.3	57.7 ±7.1	17.4 ±5.3
35-44	32.1 ±6.1	56.1 ±6.3	11.8 ±3.7
45-54	28.2 ±5.5	55.5 ±6.3	16.3 ±5.3
55-64	35.2 ±6.7	54.7 ±6.9	10.1 ±4.5
65-74	38.6 ±7.3	55.2 ±7.3	6.2 ±2.7
75+	45.1 ±7.6	49.5 ±7.6	5.4 ±2.7
Sex			
Males	23.8 ±3.7	57.3 ±4.3	18.9 ±3.5
Females	37.0 ±3.5	53.0 ±3.5	10.0 ±2.2
Race			
White	30.6 ±2.9	56.3 ±3.1	13.1 ±2.4
Black	32.4 ±6.1	46.2 ±7.3	21.4 ±6.5
Education			
<High school	38.9 ±9.2	49.5 ±9.6	11.7 ±7.3
High school graduate	31.2 ±4.3	54.9 ±4.7	14.0 ±3.5
Some college	30.0 ±4.9	54.4 ±5.1	15.6 ±3.9
College graduate	27.7 ±4.5	58.3 ±5.1	13.9 ±3.7
Household income			
< $20,000	41.8 ±7.4	44.7 ±7.4	13.5 ±5.7
$20,000-34,999	34.1 ±5.3	55.9 ±5.7	9.9 ±2.9
$35,000-49,999	26.5 ±6.3	60.0 ±7.1	13.5 ±5.1
$50,000-74,999	29.2 ±6.7	54.7 ±7.1	16.1 ±5.9
$75,000 +	18.3 ±5.1	60.9 ±6.7	20.8 ±5.7

[1]Responses to the following 2 questions were combined: "How often do you eat at a fast food restaurant?" and "Not including fast food restaurants, how often do you eat in a restaurant or eat take-out from a restaurant or grocery store?"

[2]Less than once a week, including no times per week.

[3]Once a week to less than 5 times per week.

[4]Five or more times per week.

Table 12. Convenience Food Consumption[1]

2002 Michigan Nutrition and Physical Activity Survey

(percentages with 95% confidence interval limits)

Demographic Characteristics	At Least Once/Day	Several Times/Week	Once a Week or Less
Total	9.3 ±1.7	28.9 ±2.6	61.8 ±2.8
Age (in years)			
18-24	9.6 ±5.7	35.5 ±9.5	54.9 ±9.7
25-34	14.4 ±5.3	28.2 ±6.1	57.4 ±7.0
35-44	8.0 ±3.1	30.3 ±5.9	61.7 ±6.2
45-54	8.4 ±4.1	30.1 ±6.0	61.5 ±6.4
55-64	7.4 ±3.5	22.6 ±5.2	70.0 ±5.8
65-74	7.9 ±4.6	22.1 ±6.3	70.0 ±7.1
75+	7.2 ±3.6	31.3 ±7.9	61.5 ±7.9
Sex			
Males	9.5 ±2.9	30.5 ±4.2	60.09 ±4.4
Females	9.2 ±2.0	27.5 ±3.2	63.3 ±3.4
Race			
White	10.1 ±2.0	30.7 ±3.0	59.2 ±3.2
Black	6.7 ±3.5	21.0 ±6.0	72.3 ±6.5
Education			
<High school	10.6 ±6.6	34.4 ±9.9	55.0 ±9.9
High school graduate	8.0 ±2.6	26.4 ±4.3	65.6 ±4.6
Some college	9.1 ±3.3	32.1 ±4.9	58.8 ±5.2
College graduate	10.9 ±3.3	27.0 ±4.6	62.1 ±5.1
Household income			
< $20,000	8.3 ±4.1	28.9 ±7.3	62.8 ±7.5
$20,000-34,999	9.8 ±3.8	26.3 ±5.1	63.9 ±5.6
$35,000-49,999	7.4 ±3.2	27.5 ±6.1	65.1 ±6.5
$50,000-74,999	12.2 ±4.9	32.8 ±6.9	55.0 ±7.1
$75,000 +	8.6 ±4.1	29.1 ±6.3	62.3 ±6.7

[1]Response to the question, "How often do you eat convenience foods, that is frozen, canned or packaged foods? For example frozen dinners or meal items, canned soups or pasta, or dried convenience foods. Would you say that you eat these prepared foods at least once a day, several times a week, about once a week, several times per months, or less than once a month?" Overall results were: 9.3% (±1.7) reported at least once/day, 28.9% (±2.6) several times/week, 21.2% (±2.2) about once/week, 17.6% (±2.0) several times/month, and 23.0% (±2.4) reported less than once a month.

Table 13. Meatless Dinners

2002 Michigan Nutrition and Physical Activity Survey
(medians with 95% confidence intervals)

Demographic Characteristics	Median Number of Meatless Dinners Per Week[1]
Total	0.8 (0.6-0.9)
Age (in years)	
18-24	0.7 (0.3-1.1)
25-34	0.4 (0.1-0.7)
35-44	0.6 (0.4-0.8)
45-54	1.0 (0.7-1.3)
55-64	0.9 (0.6-1.2)
65-74	1.0 (0.7-1.3)
75 +	1.4 (1.1-1.7)
Sex	
Males	0.6 (0.5-0.8)
Females	0.9 (0.7-1.1)
Race	
White	0.9 (0.7-1.0)
Black	0.1 (0.1-0.4)
Education	
<High school	0.8 (0.3-1.2)
High school graduate	0.5 (0.3-0.7)
Some college	0.8 (0.6-1.0)
College graduate	1.1 (0.8-1.3)
Household income	
< $20,000	1.0 (0.6-1.5)
$20,000-34,999	0.6 (0.4-0.9)
$35,000-49,999	0.5 (0.1-0.8)
$50,000-74,999	0.7 (0.4-1.0)
$75,000 +	1.1 (0.8-1.3)

[1]Response to the question, "In a usual week, how many meatless dinners do you eat, that is dinners that contain no meat, chicken, or turkey?"

Table 14. Received Advice on Diet, Weight, and Physical Activity

2002 Michigan Nutrition and Physical Activity Survey
(percentages with 95% confidence interval limits)

Demographic Characteristics	Fewer High Fat or High Cholesterol Foods[1]	Body Weight[2]	Physical Activity[3]
Total	27.3 ±2.3	21.6 ±2.3	21.6 ±2.2
Age (in years)			
18-24	5.6 ±4.5	9.3 ±5.4	8.6 ±4.9
25-34	14.0 ±4.2	14.1 ±4.9	12.0 ±4.2
35-44	20.4 ±5.2	19.7 ±5.1	19.5 ±4.6
45-54	33.9 ±5.7	24.1 ±5.1	28.5 ±5.6
55-64	48.5 ±6.7	39.3 ±6.9	33.0 ±6.4
65-74	47.6 ±7.1	28.4 ±6.8	32.1 ±6.9
75+	38.8 ±7.6	22.9 ±6.9	25.3 ±7.1
Sex			
Males	26.8 ±3.6	21.2 ±3.5	18.9 ±3.1
Females	27.7 ±3.0	22.0 ±2.9	24.2 ±2.9
Race			
White	26.5 ±2.5	20.1 ±2.5	21.7 ±2.5
Black	33.3 ±6.8	31.8 ±6.7	23.8 ±5.6
Education			
<High school	31.4 ±9.0	25.5 ±8.7	19.7 ±7.9
High school graduate	26.7 ±3.8	20.7 ±3.7	19.3 ±3.5
Some college	28.2 ±4.5	23.8 ±4.4	24.1 ±4.1
College graduate	25.6 ±4.2	19.0 ±3.9	22.4 ±4.1
Household income			
< $20,000	29.4 ±6.4	26.8 ±6.4	22.2 ±5.6
$20,000-34,999	31.1 ±5.3	25.4 ±5.4	20.1 ±4.4
$35,000-49,999	24.1 ±5.3	19.1 ±5.0	22.4 ±5.4
$50,000-74,999	26.5 ±5.9	19.2 ±5.0	22.6 ±5.9
$75,000 +	27.3 ±5.7	22.7 ±5.9	24.7 ±5.6

[1]Responded "yes" to the question, "Has your doctor advised you to eat fewer high fat or high cholesterol foods?"

[2]Responded positively to the question, "In the past 12 months, has a doctor, nurse, or other health professional given you advice about your weight?" Overall results were that 17.8% (±2.1) had been advised to lose weight, 1.5% (±0.7) to gain weight, 2.3% (±0.8) to maintain weight, and 78.4% (±2.3) had not received any advice.

[3]Responded positively to the question, "In the past 12 months, has a doctor or nurse given you advice about your physical activity?" Overall results were that 13.2% (±1.7) had been advised to increase their physical activity, 4.8% (±1.1) to maintain their physical activity, 3.6% (±1.1) to decrease their physical activity, and 78.4% (±2.2) had not received any advice.

Table 15. Made Changes in Diet and Physical Activity to Improve Health in the Past Year

2002 Michigan Nutrition and Physical Activity Survey
(percentages with 95% confidence interval limits)

Demographic Characteristics	Changes in Diet[1]	Changes in Physical Activity[2]	Changes in Both[3]
Total	46.9 ±2.8	41.7 ±2.7	29.4 ±2.5
Age (in years)			
18-24	49.1 ±9.6	43.6 ±9.4	30.4 ±8.8
25-34	46.9 ±7.0	45.6 ±7.0	33.0 ±6.3
35-44	47.0 ±6.3	42.1 ±6.2	30.3 ±5.5
45-54	54.0 ±6.3	44.4 ±6.2	33.6 ±5.9
55-64	53.4 ±6.7	46.7 ±6.7	32.0 ±6.4
65-74	36.5 ±6.8	34.9 ±7.5	19.2 ±5.8
75+	28.2 ±7.3	22.6 ±5.8	14.4 ±5.2
Sex			
Males	40.9 ±4.3	36.6 ±4.1	24.6 ±3.7
Females	52.3 ±3.5	46.4 ±3.5	33.8 ±3.3
Race			
White	45.6 ±3.1	40.1 ±3.1	27.3 ±2.8
Black	52.8 ±7.2	49.6 ±7.1	40.8 ±6.9
Education			
<High school	39.1 ±9.0	28.1 ±7.9	19.5 ±6.1
High school graduate	44.1 ±4.7	39.1 ±4.6	27.5 ±4.2
Some college	52.4 ±5.2	45.4 ±5.1	33.4 ±4.8
College graduate	47.2 ±5.3	45.1 ±5.2	30.8 ±4.9
Household income			
< $20,000	52.4 ±7.4	41.5 ±7.4	30.8 ±6.9
$20,000-34,999	41.1 ±5.6	36.8 ±5.5	27.3 ±5.1
$35,000-49,999	49.6 ±7.1	37.9 ±6.8	26.5 ±6.4
$50,000-74,999	50.7 ±7.0	48.8 ±7.0	35.3 ±6.6
$75,000 +	49.2 ±6.8	47.8 ±6.7	32.6 ±6.1

[1]Responded "yes" to the question, "In the past 12 months, have you made any changes in your diet for the purpose of improving your health?"

[2]Responded "yes" to the question, "In the past 12 months, have you made any changes in your physical activity for the purpose of improving your health?"

[3]Made changes in both diet and physical activity in the past 12 months. Overall results for this combined variable were: 29.4% (±2.5) made changes in both diet and physical activity, 17.4% (±2.1) made changes in diet but not physical activity, 12.3% (±1.8) made changes in physical activity but not diet, and 40.9% (±2.7) did not make any changes in either.

Table 16. Knowledge of Recommendations for Fruit, Vegetables, and Grain Foods
2002 Michigan Nutrition and Physical Activity Survey
(percentages with 95% confidence interval limits)

Demographic Characteristics	Fruit >= 2 Servings/Day	Vegetables >= 3 Servings/Day	Grain Foods >= 6 Servings/Day
Total	75.0 ±2.4	49.5 ±2.8	8.4 ±1.6
Age (in years)			
18-24	85.4 ±6.6	69.3 ±8.3	25.0 ±8.6
25-34	79.7 ±5.4	56.0 ±7.1	10.4 ±4.3
35-44	78.0 ±5.4	49.7 ±6.4	8.5 ±3.1
45-54	72.4 ±6.1	46.4 ±6.2	4.9 ±2.6
55-64	67.1 ±6.5	38.5 ±6.0	3.3 ±1.9
65-74	65.1 ±7.2	42.8 ±7.3	1.8 ±1.5
75+	70.5 ±6.5	37.1 ±6.9	1.4 ±1.4
Sex			
Males	66.1 ±4.0	34.9 ±4.1	6.4 ±2.4
Females	83.1 ±2.6	62.9 ±3.4	10.3 ±2.3
Race			
White	74.9 ±2.7	50.4 ±3.1	9.4 ±2.0
Black	74.1 ±5.9	45.9 ±7.2	2.3 ±1.4
Education			
<High school	57.7 ±9.4	34.8 ±9.1	4.5 ±3.6
High school graduate	70.1 ±4.4	43.1 ±4.7	5.7 ±2.3
Some college	79.7 ±3.9	52.4 ±5.2	8.1 ±3.1
College graduate	81.7 ±4.0	59.4 ±5.2	13.4 ±3.9
Household income			
< $20,000	69.7 ±6.9	44.9 ±7.4	9.6 ±5.6
$20,000-34,999	74.6 ±5.2	51.2 ±5.7	5.7 ±2.9
$35,000-49,999	77.0 ±6.0	48.7 ±7.1	7.9 ±4.5
$50,000-74,999	80.7 ±5.0	53.6 ±7.0	8.2 ±3.4
$75,000 +	78.6 ±5.7	48.4 ±6.7	11.1 ±3.9

[1]Responded 2 or more to the question, "From anything you may have heard or read, how many servings of fruit do you think you should eat every day for good health?"

[2]Responded 3 or more to the question, "How many servings of vegetables do you think you should eat every day for good health?"

[3]Responded 6 or more to the question, "How many total servings of grain foods, including all breads, cereals, rice, and pasta, do you think you should eat every day for good health?"

Table 17. Awareness of "5 A Day" Program

2002 Michigan Nutrition and Physical Activity Survey

(percentages with 95% confidence interval limits)

Demographic Characteristics	Heard of "5 A Day" Slogan[1]	Knew Main Point of "5 A Day" Slogan[2]
Total	32.0 ±2.5	48.9 ±4.6
Age (in years)		
18-34	26.4 ±4.7	51.2 ±9.9
35-54	34.2 ±4.2	52.6 ±7.5
55+	35.0 ±3.9	42.4 ±6.8
Sex		
Males	21.6 ±3.4	36.2 ±8.1
Females	41.5 ±3.5	54.8 ±5.3
Race		
White	32.9 ±2.8	52.5 ±5.0
Black	29.8 ±6.9	30.6 ±12.7
Education		
<= High school graduate	28.2 ±3.8	36.0 ±7.6
Some college	33.7 ±4.7	47.1 ±8.1
College graduate	36.3 ±4.8	67.1 ±6.7
Household income		
< $35,000	31.8 ±4.2	44.3 ±7.6
$35,000-49,999	31.0 ±6.4	43.0 ±12.1
$50,000-74,999	30.4 ±5.9	52.5 ±10.8
$75,000 +	32.6 ±6.1	53.9 ±11.0

[1]Proportion of all respondents who responded "yes" to the question, "Have you heard of the slogan "5 a day for better health"?

[2]Proportion of those who had heard of the 5 A Day slogan who responded that the main point of the slogan was to eat five servings of fruits and vegetables daily (28.8% ±4.3) or to eat more fruits and vegetables (20.1% ±3.5).

Table 18. Awareness of the Role of Folic Acid in Birth Defect Prevention Among Women Aged 18-44 Years
2002 Michigan Nutrition and Physical Activity Survey
(percentages with 95% confidence interval limits)

Demographic Characteristics	Aware That Folic Acid Can Help Prevent Some Birth Defects[1]
Total	64.8 ±5.4
Age (in years)	
18-24	49.7 ±13.4
25-34	74.0 ±7.5
35-44	65.3 ±8.2
Race	
White	70.8 ±6.0
Black	36.9 ±12.6
Education	
<=High school graduate	44.5 ±9.6
Some college	75.0 ±7.9
College graduate	79.3 ±7.5
Household income	
< $35,000	57.3 ±9.3
>= $35,000	72.6 ±6.9

[1]Proportion of women aged 18-44 years who responded "yes" to the question, "Have you ever heard or read that taking the vitamin folic acid can help prevent some birth defects?"

Table 19. Perceived Weight Status by Body Mass Index (BMI), Sex, Age, and Race[1]
2002 Michigan Nutrition and Physical Activity Survey
(percentages with 95% confidence interval limits)

	Underweight	About the Right Weight	Slightly Overweight	Very Overweight
Total	6.7	38.9	41.5	12.9
By BMI				
< 18.5	59.0	38.9	1.5	0.6
18.5-24.9	10.2	72.8	16.7	0.3
25.0-29.9	3.1	27.7	65.1	4.1
>= 30.0	2.7	3.5	48.2	45.6
Males				
18.5-24.9	17.0	72.6	10.3	0.1
25.0-29.9	3.6	34.9	59.3	2.2
>= 30.0	3.3	4.9	58.6	33.2
Females				
18.5-24.9	5.0	73.0	21.6	0.4
25.0-29.9	2.4	18.0	72.9	6.7
>= 30.0	2.1	1.9	36.6	59.4
18-34 years				
18.5-24.9	12.9	72.8	13.8	0.5
25.0-29.9	4.7	42.2	52.0	1.1
>= 30.0	2.0	3.2	60.3	34.5
35-54 years				
18.5-24.9	7.1	73.8	19.1	0.0
25.0-29.9	3.0	24.8	68.2	4.0
>= 30.0	2.9	4.4	45.7	47.0
55+ years				
18.5-24.9	10.4	71.4	17.9	0.3
25.0-29.9	2.1	20.7	70.7	6.5
>= 30.0	2.6	2.3	43.6	51.5

[1]Based on responses to the question, "How would you describe your current body weight? Would you say you are very underweight, slightly underweight, about the right weight, slightly overweight, or very overweight?"

Table 20. Proportion At-Risk From Large Waist[1]

2002 Michigan Nutrition and Physical Activity Survey

(percentages with 95% confidence intervals)

Demographic Characteristics	Waist > 40 Inches for Men, > 35 Inches for Women
Total	19.4 ±2.3
Age (in years)	
18-24	9.0 ±5.6
25-34	12.2 ±4.9
35-44	17.1 ±4.5
45-54	23.3 ±6.0
55-64	30.5 ±7.1
65-74	27.9 ±7.0
75 +	24.4 ±8.0
Sex	
Males	12.9 ±2.9
Females	26.4 ±3.5
Race	
White	18.9 ±2.6
Black	23.5 ±6.2
Education	
<High school	28.9 ±9.2
High school graduate	19.7 ±3.9
Some college	19.3 ±4.1
College graduate	15.8 ±4.1
Household income	
< $20,000	29.6 ±7.7
$20,000-34,999	22.0 ±4.8
$35,000-49,999	18.8 ±5.4
$50,000-74,999	10.2 ±3.2
$75,000 +	21.4 ±6.4

[1]Response to the question, "The next question is about your body shape, specifically the measurement around your waist. What is your waist measurement in inches? Would you say that your waist measurement is less than 30 inches, 30 to 35, 36 to 40, 41 to 45, or more than 45 inches?"

Table 21. Environmental Indicators of Community Support for Healthy Lifestyle

2002 Michigan Nutrition and Physical Activity Survey
(percentages with 95% confidence interval limits)

Demographic Characteristics	Grocery Store With Good Variety Near to Home[1]	Safe and Convenient Places to Walk or Bicycle[2]
Total	92.2 ±1.5	88.0 ±1.7
Age (in years)		
18-24	92.7 ±4.9	92.7 ±4.8
25-34	94.5 ±2.4	89.9 ±4.0
35-44	91.2 ±4.4	90.8 ±3.6
45-54	92.4 ±3.8	89.0 ±3.8
55-64	92.2 ±4.4	83.9 ±4.8
65-74	92.4 ±3.3	82.1 ±6.2
75+	88.7 ±3.7	79.4 ±7.0
Sex		
Males	92.7 ±2.5	90.0 ±2.5
Females	91.7 ±1.9	86.2 ±2.4
Race		
White	93.7 ±1.6	89.1 ±2.0
Black	82.7 ±6.1	82.5 ±4.7
Education		
< High school	85.0 ±7.9	70.3 ±9.5
High school graduate	91.6 ±2.7	87.9 ±2.9
Some college	92.6 ±2.6	89.5 ±2.6
College graduate	94.8 ±2.4	92.0 ±2.7
Household income		
< $20,000	90.1 ±4.1	83.8 ±4.8
$20,000-34,999	89.7 ±4.1	85.6 ±4.1
$35,000-49,999	93.2 ±3.8	87.8 ±4.7
$50,000-74,999	93.5 ±3.4	92.9 ±2.8
$75,000 +	96.0 ±2.5	92.7 ±3.5

[1]Proportion who responded "yes" to the question, "Is there a grocery store or supermarket within a reasonable distance from your home that you think has a good variety of foods?"

[2]Proportion who responded "yes" to the question, "In your community, do you have safe and convenient places that you can bicycle or walk for exercise?"

Table 22. Environmental Indicator of Worksite Support for Physical Activity

2002 Michigan Nutrition and Physical Activity Survey
(percentages with 95% confidence interval limits)

Demographic Characteristics	Workplace Encourages Physical Activity[1]
Total	37.2 ±3.9
Age (in years)	
18-34	37.2 ±7.1
35-44	39.0 ±7.2
45-54	35.5 ±7.6
55 +	33.6 ±9.0
Sex	
Males	34.4 ±5.7
Females	40.3 ±5.2
Race	
White	35.3 ±4.3
Black	45.7 ±10.7
Education	
<=High school graduate	29.1 ±6.0
Some college	37.3 ±6.8
College graduate	46.9 ±7.1
Household income	
< $35,000	31.6 ±7.6
$35,000-49,999	33.7 ±9.0
$50,000-74,999	43.4 ±8.6
$75,000 +	44.8 ±8.3

[1]Proportion who responded "yes" to the question, "Does your workplace encourage employees in any way to be more physically active? Examples might include providing an exercise facility or equipment, paying for health club membership, offering regular physical activity programs, or even encouraging employees to use the stairs instead of the elevator." Only those respondents who were employed for wages were asked this question (n=1,676).

Table 23. Environmental Indicators of Worksite Support for Healthy Eating[1]
2002 Michigan Nutrition and Physical Activity Survey
(percentages with 95% confidence interval limits)

Demographic Characteristics	Very Satisfied With Healthy Foods for Sale at Work[2]	Able to Buy Fruits and Vegetables at Work[3]
Total	25.0 ±4.3	54.6 ±4.7
Age (in years)		
18-34	27.0 ±8.1	53.1 ±8.5
35-44	29.3 ±8.3	61.7 ±8.0
45-54	18.0 ±7.3	48.7 ±9.5
55+	19.5 ±7.2	51.3 ±11.3
Sex		
Males	27.0 ±6.8	54.3 ±7.2
Females	22.8 ±4.8	55.1 ±5.8
Race		
White	26.0 ±4.9	53.6 ±5.4
Black	27.6 ±11.2	62.3 ±11.7
Education		
<= High school	25.2 ±7.2	51.9 ±7.9
Some college	24.9 ±7.0	53.2 ±8.2
College graduate	25.1 ±7.8	58.8 ±8.1
Household income		
< $35,000	25.0 ±8.3	48.8 ±9.4
$35,000-49,999	29.0 ±10.6	54.3 ±11.0
$50,000-74,999	30.3 ±9.9	56.5 ±9.8
$75,000 +	19.6 ±7.3	60.0 ±9.6

[1]Among respondents employed for wages who reported there were food items for sale at their worksite. 69.4% (±3.8) (n=1,218) of employed respondents had food items for sale at work.

[3]Proportion who reported "very satisfied" to the question, "Are you satisfied that there are healthy foods among those you can buy at your worksite? Would you say that you are very satisfied (25.0% ±4.3), somewhat satisfied (31.6% ±4.4), or not satisfied at all (43.4% ±4.7)?

[2]Proportion who reported "yes" to the question, "Are you able to buy fruits and vegetables at your worksite?"